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(54) **Orthodontic bracket**

(57) An orthodontic appliance according to a first aspect of the present invention is constructed by fitting a bow-shaped lock pin to a bracket. The bracket includes an arch wire passage formed therein to extend substantially horizontally, and a lock pin insertion passage formed therein to extend substantially vertically on the side nearer to the surface of a tooth than the arch wire passage. The lock pin insertion passage is a bow-shaped passage having the same or a little smaller radius of the curvature as or than the lock pin.

Teeth straightening instruments according to second and third aspects of the present invention each comprise a bracket body fixed to the tooth surface and a bracket cover for covering the bracket so as to envelop the bracket body. The bracket cover is made of an elastic material. The bracket cover and the bracket body are both elliptic, or one of them is circular and the other is elliptic. The bracket cover is attached to and detached from the bracket body by utilizing elastic deformation of the bracket cover. Upon the elastic deformation under pressing being released, the bracket cover tends to restore its configuration before the deformation and grasps the bracket body fixedly with sandwiching press. To realize this sandwiching press, the bracket body and the bracket cover are not similar to each other in their original states, but are deformed into a similar shape when the bracket cover is pressed.

With any of the first to third aspects of the present invention, the orthodontic appliance has the configura-

tion having less projections and recesses on its surface, dental plaque is hard to deposit on the appliance and, during tooth-brushing, a toothbrush can easily reach every corners of the appliance. Since various degrees of the strength of fixing the arch wire from moderate to tight fixing are realized, the orthodontic appliance can be adapted to all the treatment stages.

FIG. 1 (a)

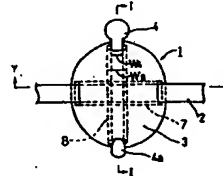


FIG. 1 (b)

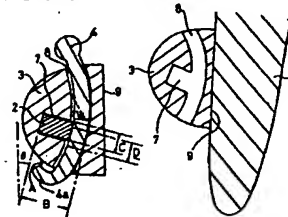


FIG. 1 (c)



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# EUROPEAN SEARCH REPORT

Application Number  
EP 95 11 8708

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP-A-0 623 320 (PLETCHER) * abstract; figure 1 *	1	A61C7/28 A61C7/12
A	US-A-3 435 527 (KESLING) col. 6, line 1, "safety lock pin" * figures 1-3 *	1	
A	US-A-4 687 441 (KLEPACKI) * abstract; figure 4 *	3,4	
A	US-A-5 160 260 (CHANG) * abstract; figure 4 *	3,4	
A	US-A-4 527 975 (GHAFARI) * abstract; figures 1-11 *	3,4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A61C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31 July 1996	Examiner Papone, F
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

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